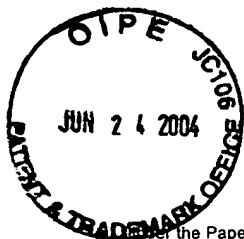


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PTO/SB92 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

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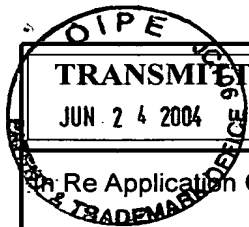
  
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New York, New York 10022-7650  
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Applicant: Abraham Fisher et al.  
Serial No: 10/796,511  
Filing Date: March 8, 2004  
For: MULTI-PARAMETER SCHEDULING IN COMMUNICATION SYSTEMS  
Enclosures: (1) Transmittal of Information Disclosure Statement (3 pages);  
(2) Information Disclosure Statement (2 pages) w/IDS Citation (4 pages) & twenty-three cited references; (3) Acknowledgement Postcard.

Burden Hour Statement: This form is estimated to take 0.03 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT**  
**(Under 37 CFR 1.97(b) or 1.97(c))**

Docket No.  
**180/03861**

Re Application Of: **Abraham FISHER et al.**

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
<b>10/796,511</b>	<b>March 8, 2004</b>	<b>Unknown</b>		<b>2661</b>	<b>1927</b>

Title: **MULTI-PARAMETER SCHEDULING IN COMMUNICATION SYSTEMS**

Address to:  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**37 CFR 1.97(b)**

1. ☒ The Information Disclosure Statement submitted herewith is being filed within three months of the filing of a national application other than a continued prosecution application under 37 CFR 1.53(d); within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; before the mailing of a first Office Action on the merits, or before the mailing of a first Office Action after the filing of a request for continued examination under 37 CFR 1.114.

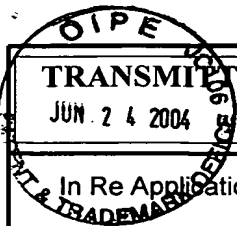
**37 CFR 1.97(c)**

2. ☐ The Information Disclosure Statement submitted herewith is being filed after the period specified in 37 CFR 1.97(b), provided that the Information Disclosure Statement is filed before the mailing date of a Final Action under 37 CFR 1.113, a Notice of Allowance under 37 CFR 1.311, or an Action that otherwise closes prosecution in the application, and is accompanied by one of:

☐ the statement specified in 37 CFR 1.97(e);

**OR**

☐ the fee set forth in 37 CFR 1.17(p).



**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT**  
(Under 37 CFR 1.97(b) or 1.97(c))

Docket No.  
180/03861

In Re Application: Abraham FISHER et al.

Application No. 10/796,511	Filing Date March 8, 2004	Examiner Unknown	Customer No.	Group Art Unit 2661	Confirmation No. 1927
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**MULTI-PARAMETER SCHEDULING IN COMMUNICATION SYSTEMS**

**Payment of Fee**

(Only complete if Applicant elects to pay the fee set forth in 37 CFR 1.17(p))

- ☐ A check in the amount of \_\_\_\_\_ is attached.
- ☒ The Director is hereby authorized to charge and credit Deposit Account No. **03-3419** as described below.
- ☐ Charge the amount of \_\_\_\_\_
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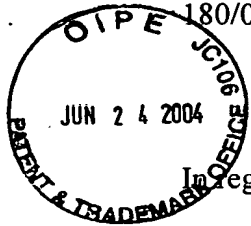
Dated: June 16, 2004

Allan C. ENTIS, Reg. No. 52,866

William H. Dippert, Esq.  
Reed Smith LLP  
599 Lexington Avenue, 29th Floor  
New York, NY 10022-7650

Tel: (212) 521-5400

CC:

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In regard to the application of: Abraham FISHER et al.

Serial No : 10/796,511

Group Art Unit: 2661

Filed : March 8, 2004

Examiner: Unknown

For : Multi-Parameter Scheduling in Communication Systems

**INFORMATION DISCLOSURE STATEMENT**

Mail Stop Amendment  
Hon. Commissioner of Patents and Trademarks  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicants respectfully direct the attention of the Examiner to art cited with respect to the present application.

The Examiner is respectfully requested to review and consider this art, in accordance with MPEP §2001.06, and to indicate in the first office action that he has considered this art. Additionally, the Examiner is respectfully requested to cite those prior art publications mentioned in this application which the Examiner considers to be material or relevant to the present claims.

Further, in order to comply with discretionary regulations 37 C.F.R. §1.97 and §1.98, attached is an Equivalent to Form PTO-1449 listing the cited art. Also attached are copies<sup>1</sup> of the art. This art contains information which the Examiner may consider to be important in deciding whether to allow the present application to issue as a patent.

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<sup>1</sup> To the extent that a document is listed and no copy of same is attached, then such document is not at the present time available to the undersigned or is available in the national stage file. If a listed document is not in the English language and an English translation is readily available, such translation is also attached; if translation is not attached, it is not readily available to the undersigned. If a foreign language patent document is cited, and an English language equivalent is known to the undersigned, then such an equivalent patent is also cited on the attached form along with the corresponding foreign language patent and a connecting arrow indicated therebetween; if no such English language equivalent is cited then none is known to the undersigned.

Applicants wish to point out that items 1-48 are not attached, as the USPTO waived the requirement under 37 C.F.R. §1.98(a)(2)(i) for submitting copies of U.S. patents and U.S. patent application publications in all U.S. applications filed after June 30, 2003. See OG Notice published on August 5, 2003.

Applicants further wish to point out that item 64 is in a foreign language, applicants attach a copy of the English-language International Search Report citing it. This report was issued in a related PCT Application No. PCT/IL01/00531.

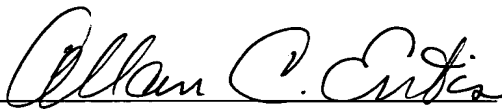
In accordance with MPEP §609 it is requested that each document cited (including any mentioned in Applicants' specification which is not repeated on the attached PTO-1449 form or equivalent thereof) be given thorough consideration and be cited of record in the prosecution history of the present application by initialing on the PTO-1449 form or its equivalent, so that it will appear on the face of the patent issuing on the present application, even if the Examiner does not consider it sufficiently pertinent to use in a rejection, or otherwise does not believe that the guidelines for citation have been fully complied with.

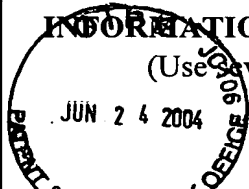
The present Information Disclosure Statement is being submitted in compliance with 37 C.F.R. §1.56 as an Examiner might consider any cited document important in deciding whether to allow the application to issue as a patent, but the citation of each document is not to be construed as an admission that such document is necessarily relevant or prior art. No representation is intended that the cited documents represent the results of a complete search, and it is anticipated that the Examiner in the normal course of examination, will make an independent search and will determine the best prior art consistent with 37 C.F.R. §1.104(a), and in the course of such search will review for relevance every document cited on the attached form.

Early and favorable consideration is earnestly solicited.

Respectfully submitted,  
Abraham FISHER et al.

June 16, 2004  
William H. Dippert, Esq.  
Reed Smith LLP  
599 Lexington Avenue, 29<sup>th</sup> Floor  
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Allan C. ENTIS,  
Registration No. 52,866

<b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary) 	ATTY DOCKET NO. <b>180/03861</b>	SERIAL NO. <b>10/796,511</b>
	APPLICANT(S) <b>Abraham FISHER et al.</b>	
	FILING <b>March 8, 2004</b>	GROUP <b>2661</b>

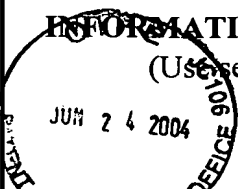
### U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	Filing date if appropriate
	1	4,965,641	23 Oct '90	BLACKWELL, S. R. et al.			
	2	5,099,449	24 Mar '92	DOMBROSKY, D. J. et al.			
	3	5,166,930	24 Nov '92	BRAFF, M. et al.			
	4	5,386,517	31 Jan '95	SHETH, J. V. et al.			
	5	5,491,691	13 Feb '96	SHTAYER, B. et al.			
	6	5,546,388	13 Aug '96	LIN, F.			
	7	5,563,885	8 Oct '96	WITCHEY, M. D.			
	8	5,568,402	2 Oct '96	GRAY, D. A. et al.			
	9	5,590,345	31 Dec '96	BARKER, T. N. et al.			
	10	5,664,095	2 Sep '97	COX, D. R. et al.			
	11	5,712,851	27 Jan '98	NGUYEN, C. E. et al.			
	12	5,721,830	24 Feb '98	YEH, H. C. et al.			
	13	5,745,758	28 Apr '98	SHAW, V. M. et al.			
	14	5,748,629	5 May '98	CALDARA, S. A. et al.			
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	16	5,790,781	4 Aug '98	COX, D. R. et al.			
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	18	5,794,058	11 Aug '98	RESNICK, R. A.			
	19	5,799,064	25 Aug '98	SRIDHAR, M. R. et al.			
	20	5,832,262	3 Nov '98	JOHNSON, C. T. et al.			
	21	5,852,655	22 Dec '98	MCHALE, J. F. et al.			
	22	5,905,725	18 May '99	SINDHU, P. S. et al.			
	23	5,909,384	1 Jun '99	TAL, N. et al.			
	24	5,917,824	29 Jun '99	BRUECKHEIMER, S. et al.			
	25	5,920,599	6 Jul '99	IGARASHI, H.			
	26	5,925,114	20 Jul '99	HOANG, M.			
	27	5,931,950	3 Aug '99	HSU, T. J. et al.			
	28	5,940,459	17 Aug '99	HSU, T. J. et al.			

EXAMINER	DATE CONSIDERED
<small>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</small>	

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	APPLICANT(S) <b>Abraham FISHER et al.</b>	
	FILING <b>March 8, 2004</b>	GROUP <b>2661</b>

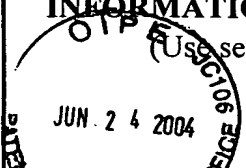
### U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	Filing date if appropriate
	29	5,960,035	28 Sep '99	SRIDHAR, M. R. et al.			
	30	5,982,776	9 Nov '99	MANNING, T. A. et al.			
	31	5,982,814	9 Nov '99	YEH, H. C. et al.			
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	34	6,006,318	21 Dec '99	HANSEN, C. C. et al.			
	35	6,058,114	2 May '00	SETHURAM, J. et al.			
	36	6,115,360	5 Sep '00	QUAY, J. R. et al.			
	37	6,128,749	3 Oct '00	MCDONNELL, D. et al.			
	38	6,148,006	14 Nov '00	DYKE, P. J. et al.			
	39	6,157,963	5 Dec '00	COURTRIGHT, W. V. et al.			
	40	6,160,843	12 Dec '00	MCHALE, J. F. et al.			
	41	6,163,599	19 Dec '00	MCHALE, J. F.			
	42	6,226,277	1 May '01	CHUAH, M.			
	43	6,262,986	17 Jul '01	ORA, Y. et al.			
	44	6,353,616	5 Mar '02	ELWALID, A. I. et al.			
	45	6,385,638	7 May '02	BAKER-HARVEY, M.			
	46	6,385,673	7 May '02	DEMONEY, M. A.			
	47	6,457,037	24 Sep '02	MAYTAL, B.			
	48	6,549,951	15 Apr '03	HULD, K. et al.			

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION	
							YES	NO
	49	EP 0 491 489	24 Jun '92	EUROPE				
	50	EP 0 831 624	25 Mar '98	EUROPE				
	51	EP 0 859 492	19 Aug '98	EUROPE				
	52	EP 0 913 770	6 May '99	EUROPE				
	53	WO 98/54868	3 Dec '98	PCT				

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	APPLICANT(S) <b>Abraham FISHER et al.</b>	
	FILING <b>March 8, 2004</b>	GROUP <b>2661</b>

### FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION	
							YES	NO
	54	WO 99/06913	11 Feb '99	PCT				
	55	WO 99/20033	22 Apr '99	PCT				
	56	WO 99/39530	5 Aug '99	PCT				
	57	WO 00/11843	2 Mar '00	PCT				
	58	WO 01/35228	17 May '01	PCT				
	59	WO 01/35575	17 May '01	PCT				
	60	WO 01/60008	16 Aug '01	PCT				

### OTHER DOCUMENTS (Including Author, Title, Date Pertinent Pages, Etc.)

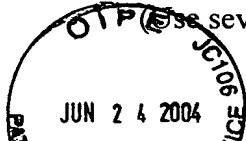
	61	CROVELLA, M. E. et al. for USENIX; Abstracts "Connection Scheduling in Web Servers;" last changed September 23, 1999; 1 page retrieved from the internet on January 30, 2002 < <a href="http://www.usenix.org/events/usits99/crovella.html">http://www.usenix.org/events/usits99/crovella.html</a> >
	62	EYUBOGLU, M. V. et al.; "Advanced Modulation Techniques for V.Fast;" May-June 1993; Pages 243-256; European Trans. On Telecomm. and Related Tech.; Vol. 4; No. 3
	63	FORNEY, D. G. Jr. et al.; "The V.34 High-Speed Modem Standard;" December 1996; Pages 28-33; IEEE Communications Magazine
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	65	GOPALAKRISHNAN, R. et al.; "Efficient User-Space Protocol Implementations with QoS Guarantees Using Real-Time Upcalls;" 1 August 1998; Pages 374-388; IEEE/ACM Transactions on Networking; Vol. 6; No.4; XP000771968
	66	HELD, G.; "The Complete Modem Reference;" John Wiley and Sons; pages 260-262; XP002153737

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	APPLICANT(S) <b>Abraham FISHER et al.</b>	
	FILING <b>March 8, 2004</b>	GROUP <b>2661</b>

**OTHER DOCUMENTS** (Including Author, Title, Date Pertinent Pages, Etc.)

	67	ITU-T Telecommunication Standardization Sector of ITU; "Series V: Data Communication Over the Telephone Network - Interfaces and Voiceband Modems;" "A Modem Operating at Data Signalling Rates of up to 33 600 Bits/s for Use on the General Switched Telephone Network and on Leased Point-to-Point 2-Wire Telephone-Type Circuits;" October 9, 1996; International Telecommunication Union; ITU-T Recommendation V.34, XP002082229
	68	MACVITTIE, D. for Sun.com; "Best Practices How-Tos: Tuning your iPlanet[tm] Web Server"; November 19, 2001; Pages 1-7; retrieved from the internet on 24 January 2002 < <a href="http://dcb.sun.com/practices/howtos/tuning_iplanet.jsp">http://dcb.sun.com/practices/howtos/tuning_iplanet.jsp</a> >
	69	Newton's Telecom Dictionary, the Official Dictionary of Telecommunications & the Internet; 15 <sup>th</sup> Updated, Expanded and Much Improved Edition; February 1999; Pages 645, 660; "RAC- Remote Access Concentrator" and "Remote Access Server"
	70	Zeus Technology Inc.; Zeus Load Balancer v1.4; Chapter 1 - Sizing Guide; retrieved from the internet on 24 January 2002 < <a href="http://support.zeus.com/doc/zlb/sizing-guide.pdf">http://support.zeus.com/doc/zlb/sizing-guide.pdf</a> >
	71	"T.38"; ITU-T Telecommunication Standardization Sector of ITU; 18 June 1998; XP002163782

<b>EXAMINER</b>	<b>DATE CONSIDERED</b>
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